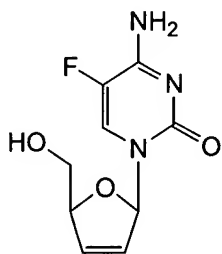


### Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

#### Listing of Claims:

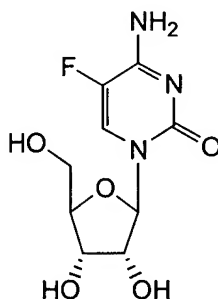
Claim 1 (Currently Amended): A process for the preparation of a compound of Formula (IV):



(IV)

comprising:

(1) contacting a compound of Formula (I):



(I)

with an acyl halide of Formula  $Q-C(=O)X$ , wherein:

Q is 2-( $R^1CH_2CO_2$ )phenyl-,  $R^1CH_2$ -, or  $R^1CH_2C(=O)OC(R^2)_2$ -;

X is Cl, Br, or I;

$R^1$  is H or  $C_1$ - $C_6$  alkyl;

$R^2$ , at each occurrence, is independently selected from methyl, ethyl, and propyl;

in a suitable polar aprotic solvent at a temperature from about 0°C to 60°C to form a

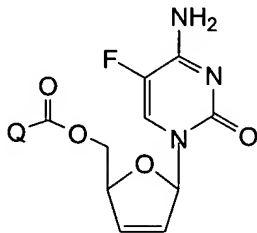
compound of Formula (II), a compound of

Formula (II\*), or a mixture of compounds of Formula (II) and (II\*):



wherein R<sup>3</sup> is X; and R<sup>4</sup> is R<sup>1</sup>CH<sub>2</sub>C(=O)O-;

(2) contacting the compound of Formula (II), the compound of Formula (II\*), or the mixture of compounds of Formula (II) and (II\*); with a suitable reducing agent in a suitable polar solvent, in the absence of an acid catalyst, to form a compound of Formula (III):



(III); and

(3) contacting the compound of Formula (III) with a suitable base to form the compound of Formula (IV).

Claim 2 (previously presented): The process of Claim 1 for the preparation of a compound of Formula (IV), wherein:

in step (1) the acyl halide of Formula Q-C(=O)X comprises:

2-acetoxy-2-methyl-propionyl bromide, 2-(acetoxy)-2-methyl-butanoyl bromide, 2-(acetoxy)-2-ethyl-butanoyl bromide, or 2-(acetoxy)-2-methyl-pentanoyl bromide;

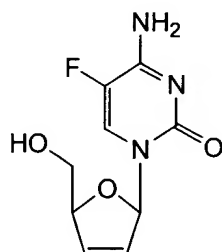
in step (1), the suitable polar aprotic solvent comprises one polar aprotic solvent or a combination of two or more polar aprotic solvents; and is selected from the group consisting of: methylene chloride, tetrahydrofuran, t-butyl methyl ether, dimethoxy ethane, 2-methoxyethyl ether, dimethylformamide, dimethylacetamide, acetonitrile, ethyl acetate, and isopropyl acetate;

in step (2), the suitable reducing agent is selected from the group consisting of: Fe, Zn-Cu couple and Zn;

in step (2), the suitable polar solvent comprises one polar solvent or a combination of two or more polar solvents; and is selected from the group consisting of: methanol, ethanol, propanol, ethyl acetate, propyl acetate, butyl acetate, isopropyl acetate, acetonitrile, tetrahydrofuran, dimethoxy ethane, and 2-methoxyethyl ether; and

in step (3) the suitable base is selected from the group consisting of: sodium hydroxide, lithium hydroxide, potassium carbonate, sodium carbonate, sodium methoxide, sodium ethoxide, C<sub>3</sub>-C<sub>6</sub> alkyl primary amine, ammonium hydroxide, and ammonium C<sub>1</sub>-C<sub>6</sub> alkoxide.

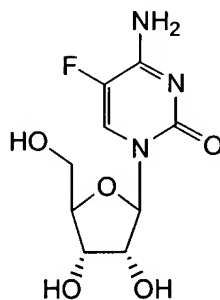
Claim 3 (previously presented): The process according to Claim 1, for the preparation of a compound of Formula (IV):



(IV)

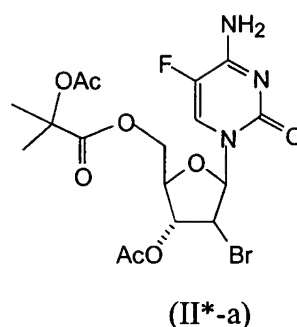
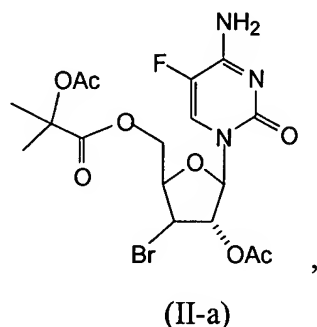
comprising:

(1) contacting a compound of Formula (I):

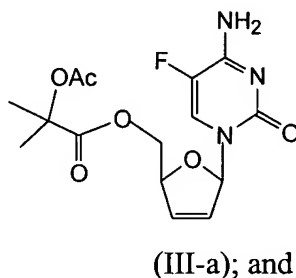


(I)

with 2-acetoxy-2-methyl-propionyl bromide in a suitable polar aprotic solvent to form a compound of Formula (II-a), a compound of Formula (II\*-a), or a mixture of compounds of Formula (II-a) and (II\*-a):



(2) contacting the compound of Formula (II-a), the compound of Formula (II\*-a), or the mixture of compounds of Formula (II-a) and (II\*-a); with a suitable reducing agent in a suitable polar solvent, in the absence of an acid catalyst, to form a compound of Formula (III-a):



(3) contacting the compound of Formula (III-a) with a suitable base to form the compound of Formula (IV).

Claim 4 (previously presented): The process of Claim 3 for the preparation of a compound of Formula (IV), wherein:

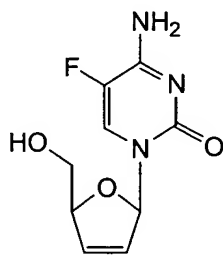
- in step (1), the suitable polar aprotic solvent comprises one polar aprotic solvent or a combination of two or more polar aprotic solvents; and is selected from the group consisting of: methylene chloride, tetrahydrofuran, t-butyl methyl ether, dimethoxy ethane, 2-methoxyethyl ether, dimethylformamide, dimethylacetamide, acetonitrile, ethyl acetate, and isopropyl acetate;
- in step (2), the suitable reducing agent is selected from the group consisting of: Fe, Zn-Cu couple and Zn;
- in step (2), the suitable polar solvent comprises one polar solvent or a combination of two or more polar solvents; and is selected from the group consisting of: methanol, ethanol, propanol, ethyl acetate, propyl acetate, butyl acetate, isopropyl acetate,

acetonitrile, tetrahydrofuran, dimethoxy ethane, and 2-methoxyethyl ether; and in step (3) the suitable base is selected from the group consisting of: sodium hydroxide, lithium hydroxide, potassium carbonate, sodium carbonate, sodium methoxide, sodium ethoxide, C<sub>3</sub>-C<sub>6</sub> alkyl primary amine, ammonium hydroxide, and ammonium C<sub>1</sub>-C<sub>6</sub> alkoxide.

Claim 5 (previously presented): The process of Claim 4 for the preparation of a compound of Formula (IV), wherein:

- in step (1), the suitable polar aprotic solvent comprises a combination of acetonitrile and ethyl acetate;
- in step (2), the suitable reducing agent is Zn-Cu couple;
- in step (2), the suitable polar solvent comprises a combination of methanol and ethyl acetate; and
- in step (3) the suitable base is sodium methoxide.

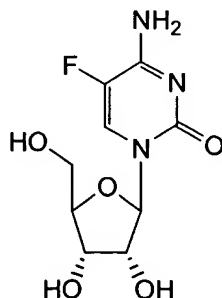
Claim 6 (previously presented): The process according to Claim 5, for the preparation of a compound of Formula (IV):



(IV)

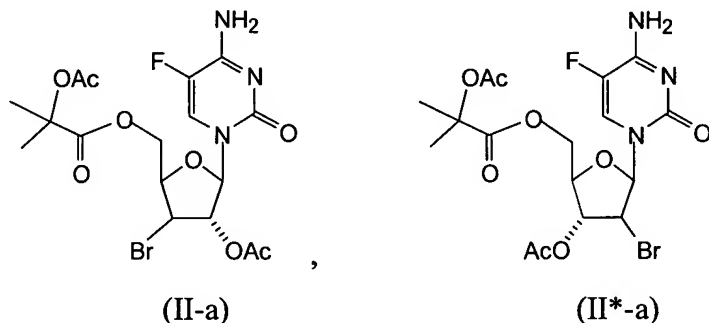
comprising:

- (1) contacting a compound of Formula (I):

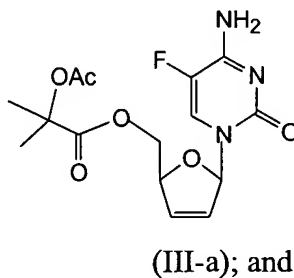


(I)

with 2-acetoxy-2-methyl-propionyl bromide in a suitable polar aprotic solvent comprising a combination of acetonitrile and ethyl acetate, wherein the ratio of acetonitrile to ethyl acetate is 1:4; to form a compound of Formula (II-a), a compound of Formula (II\*-a), or a mixture of compounds of Formula (II-a) and (II\*-a):

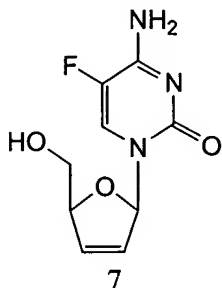


(2) contacting the compound of Formula (II-a), the compound of Formula (II\*-a), or the mixture of compounds of Formula (II-a) and (II\*-a); with Zn-Cu couple in a suitable polar solvent comprising a combination of methanol and ethyl acetate, wherein the ratio of methanol to ethyl acetate is in the range of 1:2 to 1:4, to form a compound of Formula (III-a):



(3) contacting the compound of Formula (III-a) with sodium methoxide to form the compound of Formula (IV).

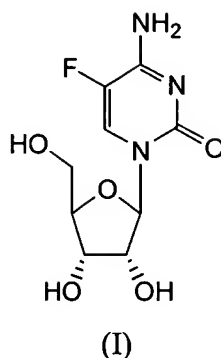
Claim 7 (previously presented): The process of Claim 1 for the preparation of a compound of Formula (IV):



(IV)

comprising:

(1) contacting a compound of Formula (I):



with an acyl halide of Formula  $Q-C(=O)X$ , wherein:

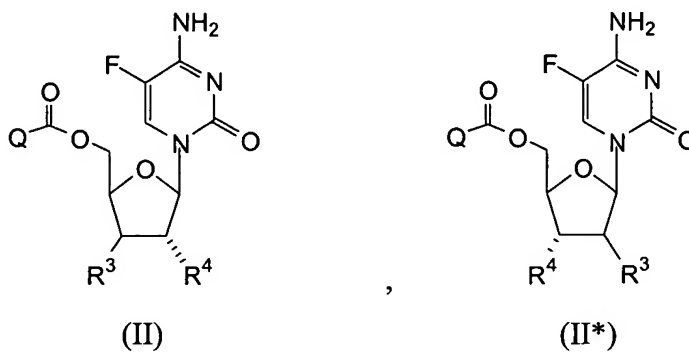
$Q$  is  $R^1CH_2C(=O)OC(R^2)_2-$ ;

$X$  is Cl, Br, or I;

$R^1$  is H,  $CH_3$ ,  $CH_2CH_3$ , or  $CH_2CH_2CH_3$ ;

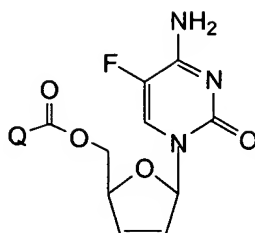
$R^2$ , at each occurrence, is independently selected from methyl, ethyl, and propyl;

in a suitable polar aprotic solvent to form a compound of Formula (II) or a compound of Formula (II\*):



wherein  $R^3$  is X; and  $R^4$  is  $R^1CH_2C(=O)O-$ ;

(2) contacting the compound of Formula (II) or the compound of Formula (II\*) with a suitable reducing agent in a suitable polar solvent, in the absence of an acid catalyst, to form a compound of Formula (III):



(III); and

(3) contacting the compound of Formula (III) with a suitable base to form the compound of Formula (IV).

Claim 8 (previously presented): The process of Claim 7 for the preparation of a compound of Formula (IV), wherein:

in step (1) the acyl halide of Formula Q-C(=O)X comprises:

2-acetoxy-2-methyl-propionyl bromide, 2-(acetoxy)-2-methyl-butanoyl bromide, 2-(acetoxy)-2-ethyl-butanoyl bromide, or 2-(acetoxy)-2-methyl-pentanoyl bromide;

in step (1), the suitable polar aprotic solvent comprises

one polar aprotic solvent or a combination of two or more polar aprotic solvents; and is selected from the group consisting of: methylene chloride, tetrahydrofuran, t-butyl methyl ether, dimethoxy ethane, 2-methoxyethyl ether, dimethylformamide, dimethylacetamide, acetonitrile, ethyl acetate, and isopropyl acetate;

in step (2), the suitable reducing agent is selected from the group consisting of: Fe, Zn-Cu couple and Zn;

in step (2), the suitable polar solvent comprises

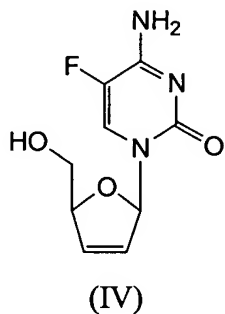
one polar solvent or a combination of two or more polar solvents; and is selected from the group consisting of: methanol, ethanol, propanol, ethyl acetate, propyl acetate, butyl acetate, isopropyl acetate, acetonitrile, tetrahydrofuran, dimethoxy ethane, and 2-methoxyethyl ether; and

in step (3) the suitable base is selected from the group consisting of: sodium hydroxide, lithium hydroxide, potassium carbonate, sodium carbonate, sodium methoxide, sodium ethoxide, C<sub>3</sub>-C<sub>6</sub> alkyl primary amine, ammonium hydroxide, and



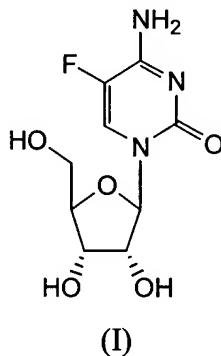
ammonium C<sub>1</sub>-C<sub>6</sub> alkoxide.

Claim 9 (previously presented): The process according to Claim 7, for the preparation of a compound of Formula (IV):

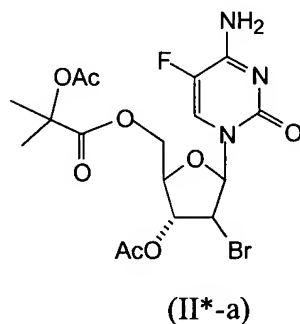
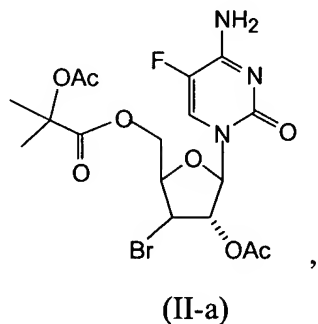


comprising:

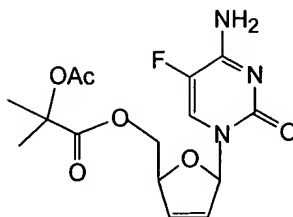
(1) contacting a compound of Formula (I):



with 2-acetoxy-2-methyl-propionyl bromide in a suitable polar aprotic solvent to form a compound of Formula (II-a) or a compound of Formula (II\*-a):



(2) contacting the compound of Formula (II-a) or the compound of Formula (II\*-a) with a suitable reducing agent in a suitable polar solvent, in the absence of an acid catalyst, to form a compound of Formula (III-a):



(III-a); and

(3) contacting the compound of Formula (III-a) with a suitable base to form the compound of Formula (IV).

Claim 10 (previously presented): The process of Claim 9 for the preparation of a compound of Formula (IV), wherein:

- in step (1), the suitable polar aprotic solvent comprises one polar aprotic solvent or a combination of two or more polar aprotic solvents; and is selected from the group consisting of: methylene chloride, tetrahydrofuran, t-butyl methyl ether, dimethoxy ethane, 2-methoxyethyl ether, dimethylformamide, dimethylacetamide, acetonitrile, ethyl acetate, and isopropyl acetate;
- in step (2), the suitable reducing agent is selected from the group consisting of: Fe, Zn-Cu couple and Zn;
- in step (2), the suitable polar solvent comprises one polar solvent or a combination of two or more polar solvents; and is selected from the group consisting of: methanol, ethanol, propanol, ethyl acetate, propyl acetate, butyl acetate, isopropyl acetate, acetonitrile, tetrahydrofuran, dimethoxy ethane, and 2-methoxyethyl ether; and
- in step (3) the suitable base is selected from the group consisting of: sodium hydroxide, lithium hydroxide, potassium carbonate, sodium carbonate, sodium methoxide, sodium ethoxide, C<sub>3</sub>-C<sub>6</sub> alkyl primary amine, ammonium hydroxide, and ammonium C<sub>1</sub>-C<sub>6</sub> alkoxide.

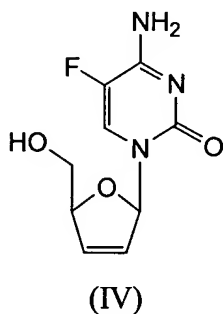
Claim 11 (previously presented): The process of Claim 10 for the preparation of a compound of Formula (IV), wherein:

- in step (1), the suitable polar aprotic solvent comprises a combination of acetonitrile and ethyl acetate;
- in step (2), the suitable reducing agent is Zn-Cu couple;

in step (2), the suitable polar solvent comprises a combination of methanol and ethyl acetate; and

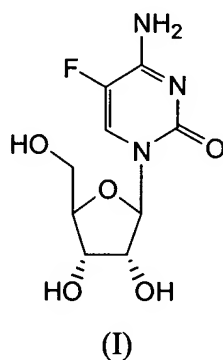
in step (3) the suitable base is sodium methoxide.

Claim 12 (previously presented): process according to Claim 11, for the preparation of a compound of Formula (IV):

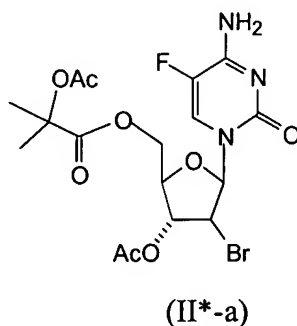
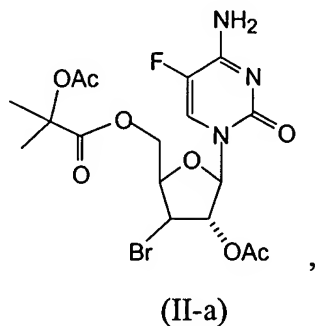


comprising:

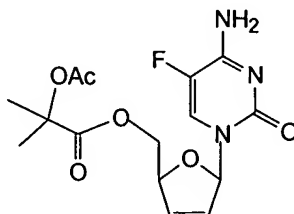
(1) contacting a compound of Formula (I):



with 2-acetoxy-2-methyl-propionyl bromide in a suitable polar aprotic solvent comprising a combination of acetonitrile and ethyl acetate, wherein the ratio of acetonitrile to ethyl acetate is 1:4; to form a compound of Formula (II-a) or a compound of Formula (II\*-a):



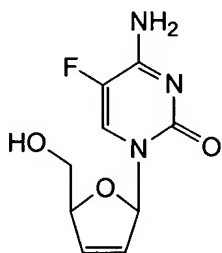
(2) contacting the compound of Formula (II-a) or the compound of Formula (II\*-a); with Zn-Cu couple in a suitable polar solvent comprising a combination of methanol and ethyl acetate, wherein the ratio of methanol to ethyl acetate is in the range of 1:2 to 1:4, to form a compound of Formula (III-a):



(III-a); and

(3) contacting the compound of Formula (III-a) with sodium methoxide to form the compound of Formula (IV).

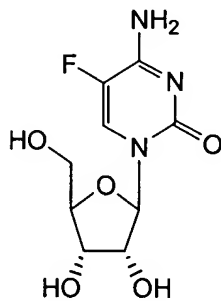
Claim 13 (previously presented): The process of Claim 1 for the preparation of a compound of Formula (IV):



(IV)

comprising:

(1) contacting a compound of Formula (I):



(I)

with an acyl halide of Formula Q-C(=O)X, wherein:

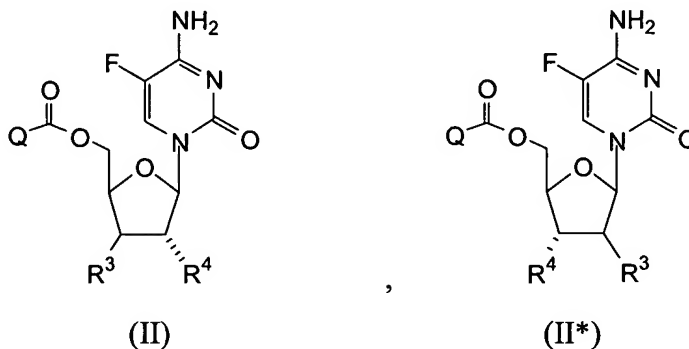
Q is  $R^1CH_2C(=O)OC(R^2)_2-$ ;

X is Cl, Br, or I;

R<sup>1</sup> is H, CH<sub>3</sub>, CH<sub>2</sub>CH<sub>3</sub>, or CH<sub>2</sub>CH<sub>2</sub>CH<sub>3</sub>;

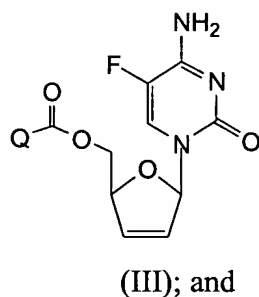
R<sup>2</sup>, at each occurrence, is independently selected from methyl, ethyl, and propyl;

in a suitable polar aprotic solvent to form a mixture of compounds of Formula (II) and (II\*):



wherein R<sup>3</sup> is X; and R<sup>4</sup> is R<sup>1</sup>CH<sub>2</sub>C(=O)O-;

(2) contacting the mixture of compounds of Formula (II) and (II\*) with a suitable reducing agent in a suitable polar solvent, in the absence of an acid catalyst, to form a compound of Formula (III):



(3) contacting the compound of Formula (III) with a suitable base to form the compound of Formula (IV).

Claim 14 (previously presented): The process of Claim 13 for the preparation of a compound of Formula (IV), wherein:

in step (1) the acyl halide of Formula Q-C(=O)X comprises:

2-acetoxy-2-methyl-propionyl bromide, 2-(acetoxy)-2-methyl-butanoyl bromide, 2-(acetoxy)-2-ethyl-butanoyl bromide, or 2-(acetoxy)-2-methyl-pentanoyl bromide;

in step (1), the suitable polar aprotic solvent comprises one polar aprotic solvent or a

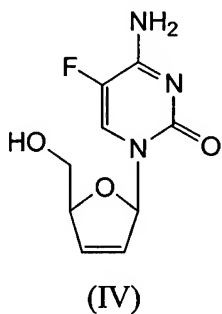
combination of two or more polar aprotic solvents; and is selected from the group consisting of: methylene chloride, tetrahydrofuran, t-butyl methyl ether, dimethoxy ethane, 2-methoxyethyl ether, dimethylformamide, dimethylacetamide, acetonitrile, ethyl acetate, and isopropyl acetate;

in step (2), the suitable reducing agent is selected from the group consisting of: Fe, Zn-Cu couple and Zn;

in step (2), the suitable polar solvent comprises one polar solvent or a combination of two or more polar solvents; and is selected from the group consisting of: methanol, ethanol, propanol, ethyl acetate, propyl acetate, butyl acetate, isopropyl acetate, acetonitrile, tetrahydrofuran, dimethoxy ethane, and 2-methoxyethyl ether; and

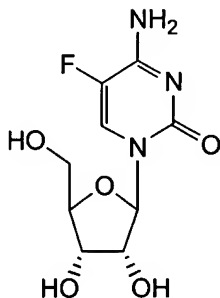
in step (3) the suitable base is selected from the group consisting of: sodium hydroxide, lithium hydroxide, potassium carbonate, sodium carbonate, sodium methoxide, sodium ethoxide, C<sub>3</sub>-C<sub>6</sub> alkyl primary amine, ammonium hydroxide, and ammonium C<sub>1</sub>-C<sub>6</sub> alkoxide.

Claim 15 (previously presented): The process according to Claim 13, for the preparation of a compound of Formula (IV):



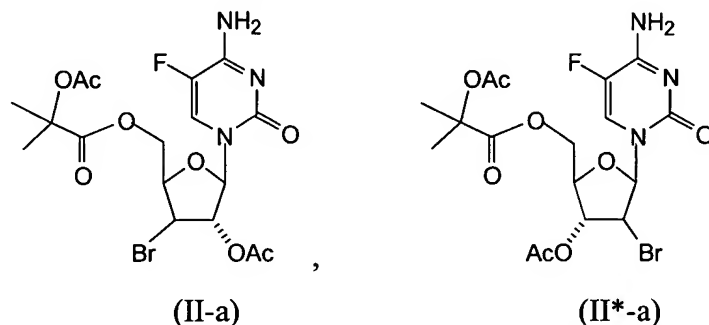
comprising:

(1) contacting a compound of Formula (I):

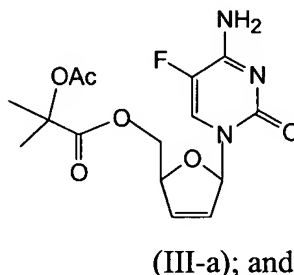


(I)

with 2-acetoxy-2-methyl-propionyl bromide in a suitable polar aprotic solvent to form a mixture of compounds of Formula (II-a) and (II\*-a):



(2) contacting the mixture of compounds of Formula (II-a) and (II\*-a) with a suitable reducing agent in a suitable polar solvent, in the absence of an acid catalyst, to form a compound of Formula (III-a):



(3) contacting the compound of Formula (III-a) with a suitable base to form the compound of Formula (IV).

Claim 16 (previously presented): The process of Claim 15 for the preparation of a compound of Formula (IV), wherein:

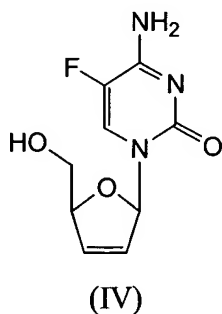
- in step (1), the suitable polar aprotic solvent comprises one polar aprotic solvent or a combination of two or more polar aprotic solvents; and is selected from the group consisting of: methylene chloride, tetrahydrofuran, t-butyl methyl ether, dimethoxy ethane, 2-methoxyethyl ether, dimethylformamide, dimethylacetamide, acetonitrile, ethyl acetate, and isopropyl acetate;
- in step (2), the suitable reducing agent is selected from the group consisting of: Fe, Zn-Cu couple and Zn;
- in step (2), the suitable polar solvent comprises one polar solvent or a combination of two

or more polar solvents; and is selected from the group consisting of: methanol, ethanol, propanol, ethyl acetate, propyl acetate, butyl acetate, isopropyl acetate, acetonitrile, tetrahydrofuran, dimethoxy ethane, and 2-methoxyethyl ether; and in step (3) the suitable base is selected from the group consisting of: sodium hydroxide, lithium hydroxide, potassium carbonate, sodium carbonate, sodium methoxide, sodium ethoxide, C<sub>3</sub>-C<sub>6</sub> alkyl primary amine, ammonium hydroxide, and ammonium C<sub>1</sub>-C<sub>6</sub> alkoxide.

Claim 17 (previously presented): The process of Claim 16 for the preparation of a compound of Formula (IV), wherein:

in step (1), the suitable polar aprotic solvent comprises a combination of acetonitrile and ethyl acetate;  
in step (2), the suitable reducing agent is Zn-Cu couple;  
in step (2), the suitable polar solvent comprises a combination of methanol and ethyl acetate; and  
in step (3) the suitable base is sodium methoxide.

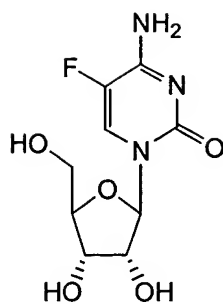
Claim 18 (previously presented): The process according to Claim 17, for the preparation of a compound of Formula (IV):



comprising:

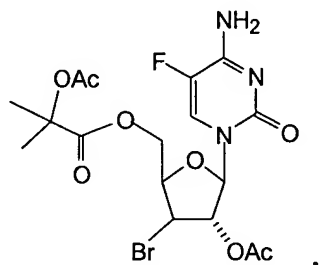
(1) contacting a compound of Formula (I):



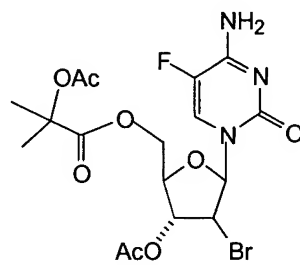


(I)

with 2-acetoxy-2-methyl-propionyl bromide in a suitable polar aprotic solvent comprising a combination of acetonitrile and ethyl acetate, wherein the ratio of acetonitrile to ethyl acetate is 1:4; to form a mixture of compounds of Formula (II-a) and (II\*-a):

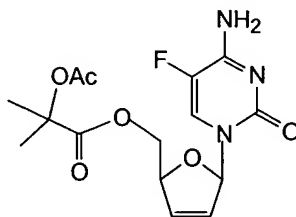


(II-a)



(II\*-a)

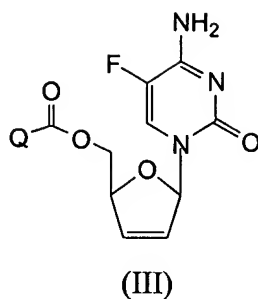
(2) contacting the mixture of compounds of Formula (II-a) and (II\*-a) with Zn-Cu couple in a suitable polar solvent comprising a combination of methanol and ethyl acetate, wherein the ratio of methanol to ethyl acetate is in the range of 1:2 to 1:4, to form a compound of Formula (III-a):



(III-a); and

(3) contacting the compound of Formula (III-a) with sodium methoxide to form the compound of Formula (IV).

Claim 19 (Currently Amended): A process for the preparation of a compound of Formula (III):



wherein:

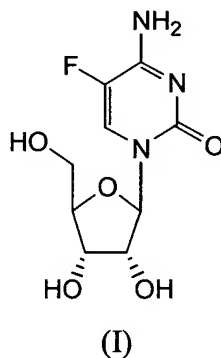
Q is 2-(R<sup>1</sup>CH<sub>2</sub>CO<sub>2</sub>)phenyl-, R<sup>1</sup>CH<sub>2</sub>-, or R<sup>1</sup>CH<sub>2</sub>C(=O)OC(R<sup>2</sup>)<sub>2</sub>-;

R<sup>1</sup> is H or C<sub>1</sub>-C<sub>6</sub> alkyl;

R<sup>2</sup>, at each occurrence, is independently selected from methyl, ethyl, and propyl;

comprising:

(1) contacting a compound of Formula (I):



with an acyl halide of Formula Q-C(=O)X, wherein:

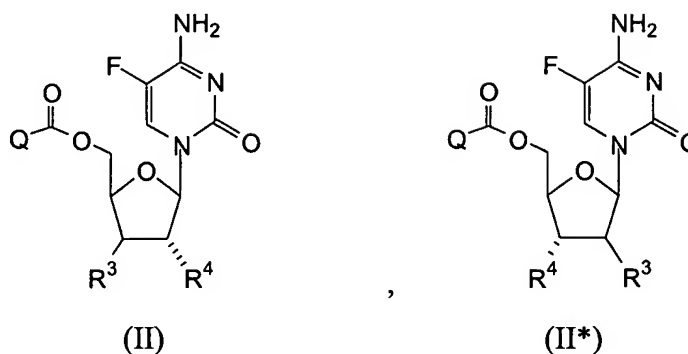
Q is 2-(R<sup>1</sup>CH<sub>2</sub>CO<sub>2</sub>)phenyl-, R<sup>1</sup>CH<sub>2</sub>-, or R<sup>1</sup>CH<sub>2</sub>C(=O)OC(R<sup>2</sup>)<sub>2</sub>-;

X is Cl, Br, or I;

R<sup>1</sup> is H or C<sub>1</sub>-C<sub>6</sub> alkyl;

R<sup>2</sup>, at each occurrence, is independently selected from methyl, ethyl, and propyl;

in a suitable polar aprotic solvent at a temperature from about 0°C to 60°C to form a compound of Formula (II), a compound of Formula (II\*), or a mixture of compounds of Formula (II) and (II\*):



wherein R<sup>3</sup> is X; and R<sup>4</sup> is R<sup>1</sup>CH<sub>2</sub>C(=O)O-; and

(2) contacting the compound of Formula (II), the compound of Formula (II\*), or the mixture of compounds of Formula (II) and (II\*); with a suitable reducing agent in a suitable polar solvent, in the absence of an acid catalyst, to form a compound of Formula (III).

Claim 20 (previously presented): The process of Claim 19 for the preparation of a compound of Formula (III), wherein:

in step (1) the acyl halide of Formula Q-C(=O)X comprises:

2-acetoxy-2-methyl-propionyl bromide, 2-(acetoxy)-2-methyl-butanoyl bromide, 2-(acetoxy)-2-ethyl-butanoyl bromide, or 2-(acetoxy)-2-methyl-pentanoyl bromide;

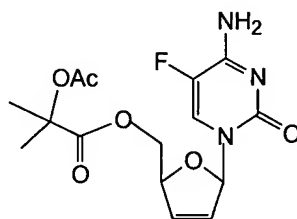
in step (1), the suitable polar aprotic solvent comprises one polar aprotic solvent or a combination of two or more polar aprotic solvents; and is selected from the group consisting of: methylene chloride, tetrahydrofuran, t-butyl methyl ether, dimethoxy ethane, 2-methoxyethyl ether, dimethylformamide, dimethylacetamide, acetonitrile, ethyl acetate, and isopropyl acetate;

in step (2), the suitable reducing agent is selected from the group consisting of: Fe, Zn-Cu couple and Zn;

and

in step (2), the suitable polar solvent comprises one polar solvent or a combination of two or more polar solvents; and is selected from the group consisting of: methanol, ethanol, propanol, ethyl acetate, propyl acetate, butyl acetate, isopropyl acetate, acetonitrile, tetrahydrofuran, dimethoxy ethane, and 2-methoxyethyl ether.

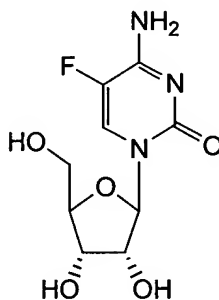
Claim 21 (previously presented): The process according to Claim 19, for the preparation of a compound of Formula (III-a):



(III-a)

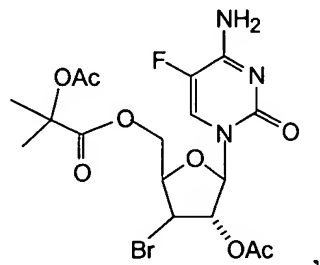
comprising:

(1) contacting a compound of Formula (I):

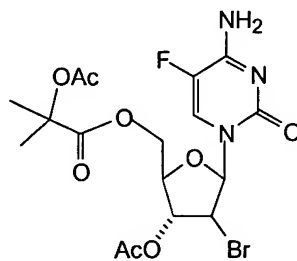


(I)

with 2-acetoxy-2-methyl-propionyl bromide in a suitable polar aprotic solvent to form a compound of Formula (II-a), a compound of Formula (II\*-a), or a mixture of compounds of Formula (II-a) and (II\*-a):



(II-a)



(II\*-a)

(2) contacting the compound of Formula (II-a), the compound of Formula (II\*-a), or the mixture of compounds of Formula (II-a) and (II\*-a); with a suitable reducing agent in a suitable polar solvent, in the absence of an acid catalyst, to form a compound of Formula (III-a).

Claim 22 (previously presented): The process of Claim 21 for the preparation of a compound of Formula (III-a), wherein:

in step (1), the suitable polar aprotic solvent comprises one polar aprotic solvent or a combination of two or more polar aprotic solvents; and is selected from the group consisting of: methylene chloride, tetrahydrofuran, t-butyl methyl ether, dimethoxy ethane, 2-methoxyethyl ether, dimethylformamide, dimethylacetamide, acetonitrile, ethyl acetate, and isopropyl acetate;

in step (2), the suitable reducing agent is selected from the group consisting of: Fe, Zn-Cu couple and Zn;

and

in step (2), the suitable polar solvent comprises one polar solvent or a combination of two or more polar solvents; and is selected from the group consisting of: methanol, ethanol, propanol, ethyl acetate, propyl acetate, butyl acetate, isopropyl acetate, acetonitrile, tetrahydrofuran, dimethoxy ethane, and 2-methoxyethyl ether.

Claim 23 (previously presented): The process of Claim 22 for the preparation of a compound of Formula (III-a), wherein:

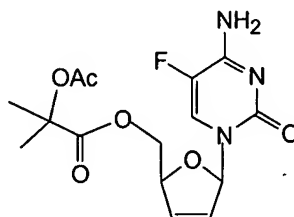
in step (1), the suitable polar aprotic solvent comprises a combination of acetonitrile and ethyl acetate;

in step (2), the suitable reducing agent is Zn-Cu couple;

and

in step (2), the suitable polar solvent comprises a combination of methanol and ethyl acetate.

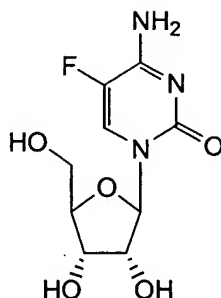
Claim 24 (previously presented): The process according to Claim 23, for the preparation of a compound of Formula (III-a):



(III-a)

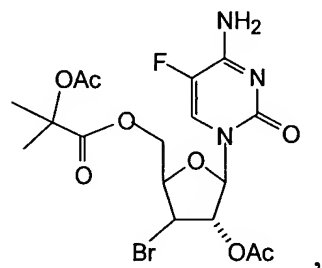
comprising:

(1) contacting a compound of Formula (I):

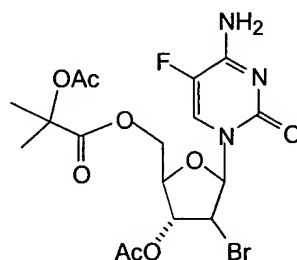


(I)

with 2-acetoxy-2-methyl-propionyl bromide in a suitable polar aprotic solvent comprising a combination of acetonitrile and ethyl acetate, wherein the ratio of acetonitrile to ethyl acetate is 1:4; to form a compound of Formula (II-a), a compound of Formula (II\*-a), or a mixture of compounds of Formula (II-a) and (II\*-a):



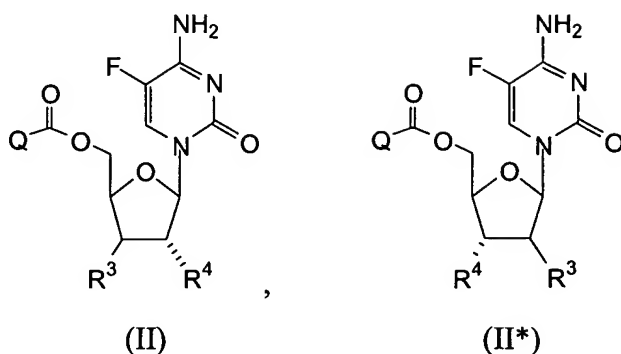
(II-a)



(II\*-a)

(2) contacting the compound of Formula (II-a), the compound of Formula (II\*-a), or the mixture of compounds of Formula (II-a) and (II\*-a); with Zn-Cu couple in a suitable polar solvent comprising a combination of methanol and ethyl acetate, wherein the ratio of methanol to ethyl acetate is in the range of 1:2 to 1:4, to form a compound of Formula (III-a).

Claim 25 (Previously Presented): A compound of Formula (II) or (II\*):



or a pharmaceutically acceptable salt thereof, wherein:

in Formula II, Q is  $R^1CH_2-$ ;

$R^1$  is  $C_1$ - $C_6$  alkyl;

$R^2$  is independently selected from methyl, ethyl, and propyl;

$R^3$  is Cl, Br, or I; and

$R^4$  is  $R^1CH_2C(=O)O-$ ;

or in Formula II, Q is  $R^1CH_2C(=O)OC(R^2)_2-$ ;

$R^1$  is H or  $C_1$ - $C_6$  alkyl;

$R^2$  is independently selected from methyl, ethyl, and propyl;

$R^3$  is Cl, Br, or I; and

$R^4$  is  $R^1CH_2C(=O)O-$ ;

and wherein:

in Formula II\*,

Q is  $R^1CH_2C(=O)OC(R^2)_2-$ ;

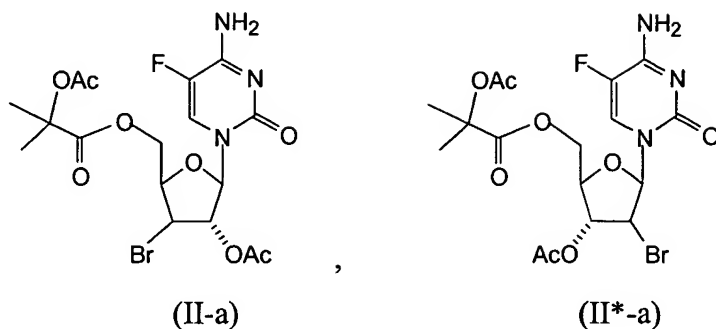
$R^1$  is H or  $C_1$ - $C_6$  alkyl;

$R^2$  is independently selected from methyl, ethyl, and propyl;

$R^3$  is Cl, Br, or I; and

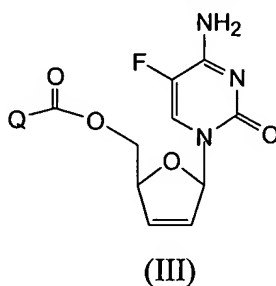
$R^4$  is  $R^1CH_2C(=O)O-$ .

Claim 26 (previously presented): A compound of Formula (II-a) or (II\*-a):



or a pharmaceutically acceptable salt thereof.

Claim 27 (previously presented): A compound of Formula (III):



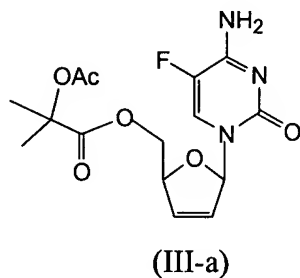
or a pharmaceutically acceptable salt thereof, wherein:

Q is  $R^1CH_2C(=O)OC(R^2)_2-$ ;

$R^1$  is H or  $C_1$ - $C_6$  alkyl; and

$R^2$  is independently selected from methyl, ethyl, and propyl.

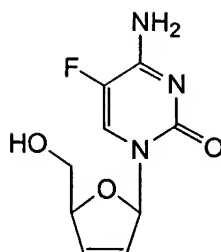
Claim 28 (previously presented): A compound of Formula (III-a):



or a pharmaceutically acceptable salt thereof.

Claim 29 (Currently Amended): A process for the preparation of a compound of Formula (IV):

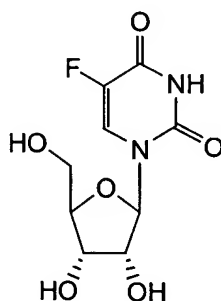




(IV)

comprising:

(1) contacting a compound of Formula (IV):



(V)

with an acyl halide of Formula  $Q-C(=O)X$ , wherein:

$Q$  is 2- $(R^1CH_2CO_2)$ phenyl-,  $R^1CH_2-$ , or  $R^1CH_2C(=O)OC(R^2)_2-$ ;

$X$  is Cl, Br, or I;

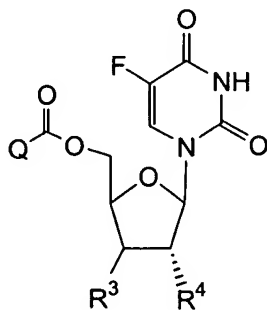
$R^1$  is H or  $C_1-C_6$  alkyl;

$R^2$ , at each occurrence, is independently selected from methyl, ethyl, and propyl;

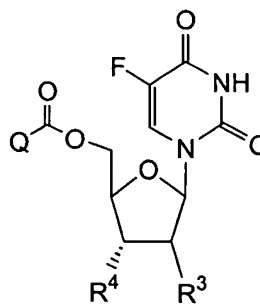
in a suitable polar aprotic solvent at a temperature from about 0°C to 60°C to form a

compound of Formula (VI), a compound of Formula (VI\*), or a mixture of compounds of

Formula (VI) and (VI\*):



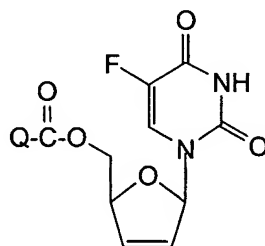
(VI)



(VI\*)

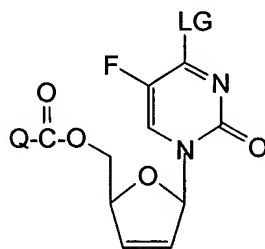
wherein  $R^3$  is X; and  $R^4$  is  $R^1CH_2C(=O)O-$ ;

(2) contacting the compound of Formula (VI), the compound of Formula (VI\*), or the mixture of compounds of Formula (VI) and (VI\*); with a reducing agent in a suitable polar solvent, in the absence of an acid catalyst, to form a compound of Formula (VII):



(VII);

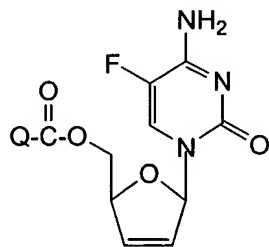
(3a) contacting the compound of Formula (VII) with an activating agent in the presence of an amine base, to form a compound of Formula (VIII):



(VIII)

wherein LG is a leaving group derived from the activating agent;

(3b) contacting the compound of Formula (VIII) with an aminating agent to form a compound of Formula (III),



; and

(III)

(4) contacting the compound of Formula (III) with a suitable base to form the compound of Formula (IV).

Claim 30 (previously presented): The process of Claim 29 for the preparation of a compound of Formula (IV), wherein:

in step (1) the acyl halide of Formula Q-C(=O)X comprises:

2-acetoxy-2-methyl-propionyl bromide,  
2-(acetoxy)-2-methyl-butanoyl bromide,  
2-(acetoxy)-2-ethyl-butanoyl bromide, or  
2-(acetoxy)-2-methyl-pentanoyl bromide;

in step (1), the suitable polar aprotic solvent comprises one polar aprotic solvent or a combination of two or more polar aprotic solvents, and is selected from the group consisting of: methylene chloride, tetrahydrofuran, t-butyl methyl ether, dimethoxy ethane, 2-methoxyethyl ether, dimethylformamide, dimethylacetamide, acetonitrile, ethyl acetate, and isopropyl acetate;

in step (2), the reducing agent is selected from the group consisting of: Fe, Zn-Cu couple and Zn;

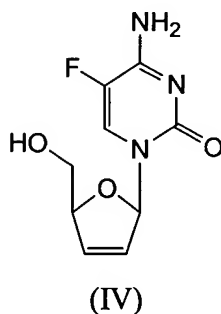
in step (2), the suitable polar solvent comprises one polar solvent or a combination of two or more polar solvents; and is selected from the group consisting of: methanol, ethanol, propanol, ethyl acetate, propyl acetate, butyl acetate, isopropyl acetate, acetonitrile, tetrahydrofuran, dimethoxy ethane, and 2-methoxyethyl ether;

in step (3a) the activating agent is selected from the group consisting of: methanesulfonyl chloride, trifluoromethyl sulfonyl chloride, ethanesulfonyl chloride, benzenesulfonyl chloride, p-toluene-sulfonyl chloride, triazole/phosphorus oxychloride and triazole/diphenyl chloro-phosphate;

in step (3a) the amine base is selected from the group consisting of: triethylamine, tributylamine, N-methylmorpholine, N,N-diisopropyl-ethylamine, N,N-dimethylcyclohexylamine, N,N-diethylcyclohexylamine, N,N-dimethyloctylamine, tetramethylethylenediamine, pyridine, N,N-dimethyl-aminopyridine, 1,4-diazabicyclo[2.2.2]octane, 1,8-diazabicyclo[5.4.0]undec-7-ene, and 1,5-diazabicyclo[4.3.0]non-5-ene;

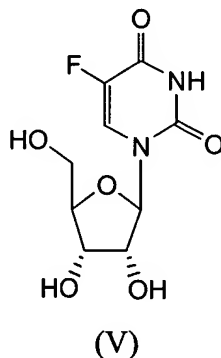
- in step (3a) the leaving group LG is selected from the group consisting of methanesulfonyloxy, trifluoromethyl-sulfonyloxy, ethanesulfonyloxy, benzenesulfonyloxy, toluenesulfonyloxy, and triazolyl;
- in step (3b) the aminating agent is selected from the group consisting of:  $\text{NH}_3$ , ammonium hydroxide, and ammonium carbonate; and
- in step (4) the suitable base is selected from the group consisting of: sodium hydroxide, lithium hydroxide, potassium carbonate, sodium carbonate, sodium methoxide, sodium ethoxide,  $\text{C}_3\text{-C}_6$  alkyl primary amine, ammonium hydroxide, and ammonium  $\text{C}_1\text{-C}_6$  alkoxide.

Claim 31 (previously presented): The process according to Claim 29, for the preparation of a compound of Formula (IV):

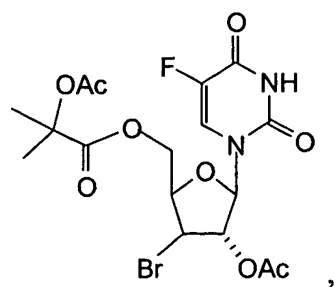


comprising:

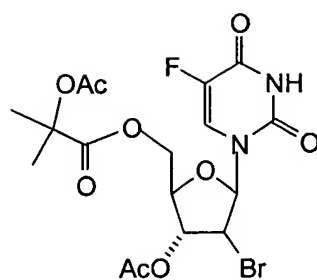
- (1) contacting a compound of Formula (V):



with 2-acetoxy-2-methyl-propionyl bromide in a suitable polar aprotic solvent to form a compound of Formula (VI-a), a compound of Formula (VI\*-a), or a mixture of compounds of Formula (VI-a) and (VI\*-a):

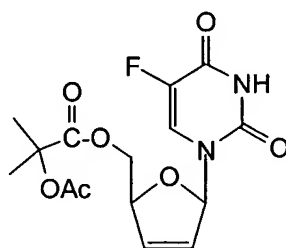


(VI-a)



(VI\*-a)

(2) contacting the compound of Formula (VI-a), the compound of Formula (VI\*-a), or the mixture of compounds of Formula (VI-a) and (VI\*-a); with a reducing agent in a suitable polar solvent, in the absence of an acid catalyst, to form a compound of Formula (VII-a):

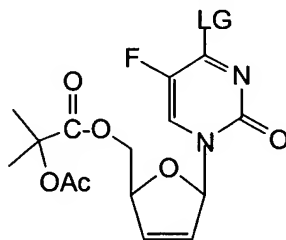


(VII-a);

(3a) contacting the compound of Formula (VII-a) with an activating agent selected from the group consisting of:

- i) an aryl sulfonyl halide,
- ii) an alkyl sulfonyl halide, and
- iii) 1,2,4-triazole in the presence of a phosphorus chloride;

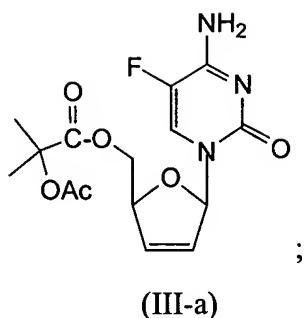
in the presence of an amine base, to form a compound of Formula (VIII-a);



(VIII-a)

wherein LG is a leaving group derived from the activating agent;

(3b) contacting the compound of Formula (VIII-a) with an aminating agent to form a compound of Formula (III-a),



and

(4) contacting the compound of Formula (III-a) with a suitable base to form the compound of Formula (IV).

Claim 32 (previously presented): The process of Claim 31 for the preparation of a compound of Formula (IV), wherein:

- in step (1), the suitable polar aprotic solvent comprises one polar aprotic solvent or a combination of two or more polar aprotic solvents; and is selected from the group consisting of: methylene chloride, tetrahydrofuran, t-butyl methyl ether, dimethoxy ethane, 2-methoxyethyl ether, dimethylformamide, dimethylacetamide, acetonitrile, ethyl acetate, and isopropyl acetate;
- in step (2), the reducing agent is selected from the group consisting of: Fe, Zn-Cu couple and Zn;
- in step (2), the suitable polar solvent comprises one polar solvent or a combination of two or more polar solvents; and is selected from the group consisting of: methanol, ethanol, propanol, ethyl acetate, propyl acetate, butyl acetate, isopropyl acetate, acetonitrile, tetrahydrofuran, dimethoxy ethane, and 2-methoxyethyl ether;
- in step (3a) the activating agent is selected from the group consisting of: methanesulfonyl chloride, trifluoromethyl sulfonyl chloride, ethanesulfonyl chloride, benzenesulfonyl chloride, p-toluene-sulfonyl chloride, triazole/phosphorus oxychloride and triazole/diphenyl chloro-phosphate;
- in step (3a) the amine base is selected from the group consisting of: triethylamine, tributylamine, N-methylmorpholine, N,N-diisopropyl-ethylamine,

tetramethylethylenediamine, pyridine,  
N,N-dimethyl-aminopyridine,  
1,4-diazabicyclo[2.2.2]octane, and  
1,8-diazabicyclo[5.4.0]undec-7-ene;

in step (3a) the leaving group LG is selected from the group consisting of  
methanesulfonyloxy, trifluoromethyl-sulfonyloxy, ethanesulfonyloxy,  
benzenesulfonyloxy, toluenesulfonyloxy, and triazolyl;

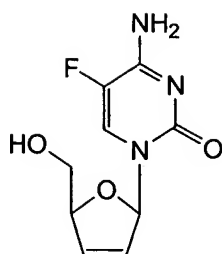
in step (3b) the aminating agent is selected  
from the group:  $\text{NH}_3$ , ammonium hydroxide, and ammonium carbonate; and

in step (4) the suitable base is selected from the group consisting of: sodium hydroxide,  
lithium hydroxide, potassium carbonate, sodium carbonate, sodium methoxide,  
sodium ethoxide,  $\text{C}_3\text{-C}_6$  alkyl primary amine, ammonium hydroxide, and  
ammonium  $\text{C}_1\text{-C}_6$  alkoxide.

Claim 33 (previously presented): The process of Claim 32 for the preparation of a  
compound of Formula (IV), wherein:

in step (1), the suitable polar aprotic solvent comprises one solvent which is acetonitrile;  
in step (2), the reducing agent is Zn-Cu couple;  
in step (2), the suitable polar solvent comprises a combination of methanol and ethyl  
acetate;  
in step (3a) the activating agent is triazole/phosphorus oxychloride;  
in step (3a) the amine base is triethylamine;  
in step (3a) the leaving group LG is triazolyl;  
in step (3b), the aminating agent is  $\text{NH}_3$ ; and  
in step (4) the suitable base is sodium methoxide.

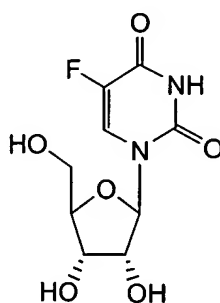
Claim 34 (previously presented): The process according to Claim 33, for the preparation  
of a compound of Formula (IV):



(IV)

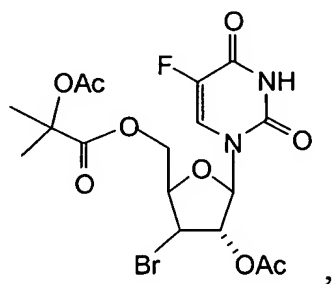
comprising:

(1) contacting a compound of Formula (V):

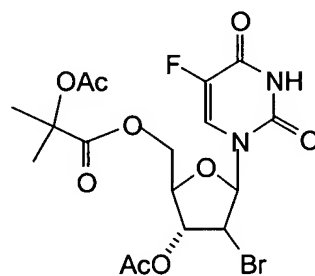


(V)

with 2-acetoxy-2-methyl-propionyl bromide in acetonitrile to form a compound of Formula (VI-a), a compound of Formula (VI\*-a), or a mixture of compounds of Formula (VI-a) and (VI\*-a):



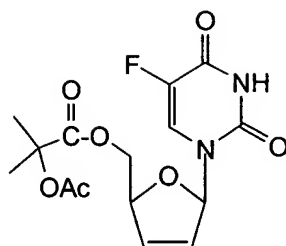
(VI-a)



(VI\*-a)

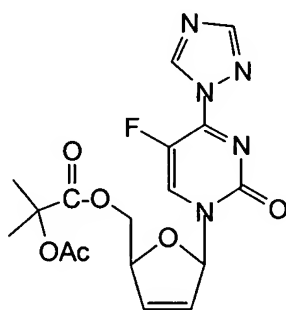
(2) contacting the compound of Formula (VI-a), the compound of Formula (VI\*-a), or the mixture of compounds of Formula (VI-a) and (VI\*-a); with Zn-Cu couple in a suitable polar solvent comprising a combination of methanol and ethyl acetate, wherein the ratio of methanol to ethyl acetate is in the range of 1:2 to 1:4, to form a compound of Formula (VII-a):





(VII-a);

(3a) contacting the compound of Formula (VII-a) with 1,2,4-triazole/phosphorus oxychloride, in the presence of triethylamine, to form a compound of Formula (VIII-a):

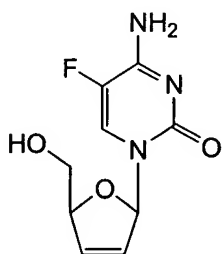


(VIII-a);

(3b) contacting the compound of Formula (VIII-a) with  $\text{NH}_3$ , to form a compound of Formula (III-a), and

(4) contacting the compound of Formula (III-a) with sodium methoxide to form the compound of Formula (IV).

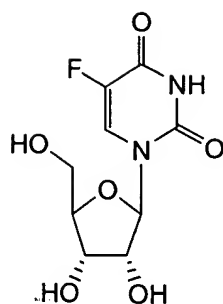
Claim 35 (previously presented): The process of Claim 29 for the preparation of a compound of Formula (IV):



(IV)

comprising:

(1) contacting a compound of Formula (V):



(V)

with an acyl halide of Formula  $Q-C(=O)X$ , wherein:

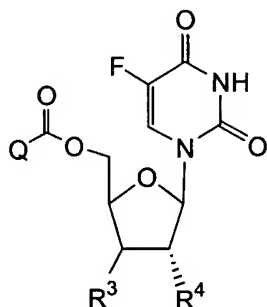
Q is 2-( $R^1CH_2CO_2$ )phenyl-,  $R^1CH_2$ -, or  $R^1CH_2C(=O)OC(R^2)_2$ -;

X is Cl, Br, or I;

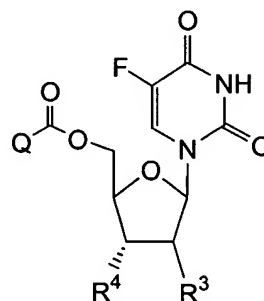
$R^1$  is H or  $C_1$ - $C_6$  alkyl;

$R^2$ , at each occurrence, is independently selected from methyl, ethyl, and propyl;

in a suitable polar aprotic solvent to form a mixture of compounds of Formula (VI) and (VI\*):



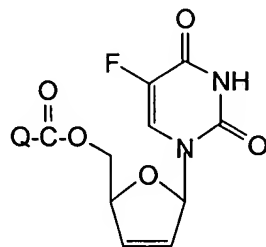
(VI)



(VI\*)

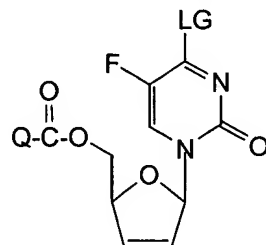
wherein  $R^3$  is X; and  $R^4$  is  $R^1CH_2C(=O)O$ -;

(2) contacting the mixture of compounds of Formula (VI) and (VI\*); with a reducing agent in a suitable polar solvent, in the absence of an acid catalyst, to form a compound of Formula (VII):



(VII);

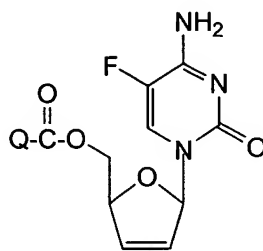
(3a) contacting the compound of Formula (VII) with an activating agent in the presence of an amine base, to form a compound of Formula (VIII):



(VIII)

wherein LG is a leaving group derived from the activating agent;

(3b) contacting the compound of Formula (VIII) with an aminating agent to form a compound of Formula (III),



; and

(III)

(4) contacting the compound of Formula (III) with a suitable base to form the compound of Formula (IV).

Claim 36 (previously presented): The process of Claim 35 for the preparation of a compound of Formula (IV), wherein:

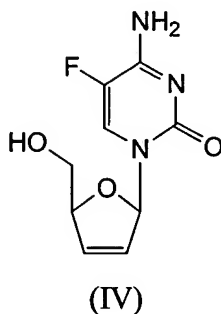
in step (1) the acyl halide of Formula  $Q-C(=O)X$  comprises:

- 2-acetoxy-2-methyl-propionyl bromide,
- 2-(acetoxy)-2-methyl-butanoyl bromide,
- 2-(acetoxy)-2-ethyl-butanoyl bromide, or
- 2-(acetoxy)-2-methyl-pentanoyl bromide;

in step (1), the suitable polar aprotic solvent comprises one polar aprotic solvent or a combination of two or more polar aprotic solvents, and is selected from the group consisting of: methylene chloride, tetrahydrofuran, t-butyl methyl ether, dimethoxy ethane, 2-methoxyethyl ether, dimethylformamide,

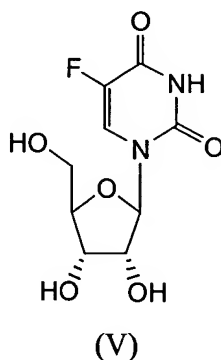
- dimethylacetamide, acetonitrile, ethyl acetate, and isopropyl acetate;
- in step (2), the reducing agent is selected from the group consisting of: Fe, Zn-Cu couple and Zn;
- in step (2), the suitable polar solvent comprises one polar solvent or a combination of two or more polar solvents; and is selected from the group consisting of: methanol, ethanol, propanol, ethyl acetate, propyl acetate, butyl acetate, isopropyl acetate, acetonitrile, tetrahydrofuran, dimethoxy ethane, and 2-methoxyethyl ether;
- in step (3a) the activating agent is selected from the group consisting of:  
methanesulfonyl chloride, trifluoromethyl sulfonyl chloride, ethanesulfonyl chloride, benzenesulfonyl chloride,  
p-toluene-sulfonyl chloride, triazole/phosphorus oxychloride and  
triazole/diphenyl chloro-phosphate;
- in step (3a) the amine base is selected from the group consisting of: triethylamine, tributylamine,  
N-methylmorpholine, N,N-diisopropyl-ethylamine,  
N,N-dimethylcyclohexylamine,  
N,N-diethylcyclohexylamine,  
N,N-dimethyloctylamine, tetramethylethylenediamine,  
pyridine, N,N-dimethyl-aminopyridine,  
1,4-diazabicyclo[2.2.2]octane,  
1,8-diazabicyclo[5.4.0]undec-7-ene, and  
1,5-diazabicyclo[4.3.0]non-5-ene;
- in step (3a) the leaving group LG is selected from the group consisting of  
methanesulfonyloxy, trifluoromethyl-sulfonyloxy, ethanesulfonyloxy,  
benzenesulfonyloxy, toluenesulfonyloxy, and triazolyl;
- in step (3b) the aminating agent is selected from the group consisting of: NH<sub>3</sub>, ammonium hydroxide, and ammonium carbonate; and
- in step (4) the suitable base is selected from the group consisting of: sodium hydroxide, lithium hydroxide, potassium carbonate, sodium carbonate, sodium methoxide, sodium ethoxide, C<sub>3</sub>-C<sub>6</sub> alkyl primary amine, ammonium hydroxide, and ammonium C<sub>1</sub>-C<sub>6</sub> alkoxide.

Claim 37 (previously presented): The process according to Claim 35, for the preparation of a compound of Formula (IV):

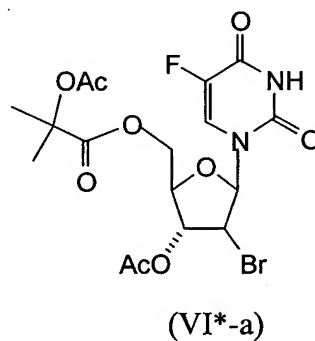
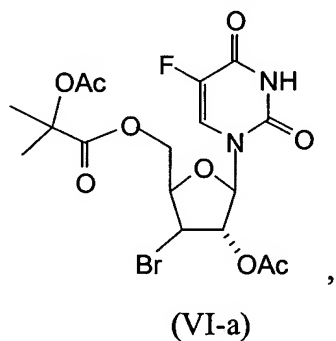


comprising:

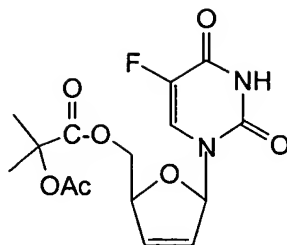
(1) contacting a compound of Formula (V):



with 2-acetoxy-2-methyl-propionyl bromide in a suitable polar aprotic solvent to form a mixture of compounds of Formula (VI-a) and (VI\*-a):



(2) contacting the mixture of compounds of Formula (VI-a) and (VI\*-a); with a reducing agent in a suitable polar solvent, in the absence of an acid catalyst, to form a compound of Formula (VII-a):

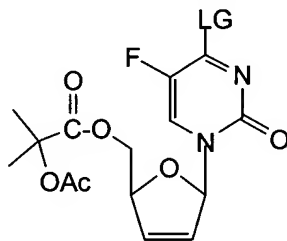


(VII-a);

(3a) contacting the compound of Formula (VII-a) with a  
activating agent selected from the group consisting of:

- i) an aryl sulfonyl halide,
- ii) an alkyl sulfonyl halide, and
- iii) 1,2,4-triazole in the presence of a phosphorus chloride;

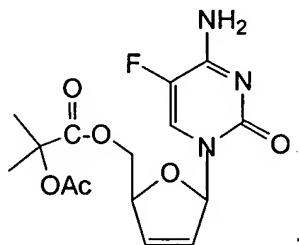
in the presence of an amine base, to form a compound of Formula (VIII-a);



(VIII-a)

wherein LG is a leaving group derived from the activating agent;

(3b) contacting the compound of Formula (VIII-a) with an aminating agent to form a  
compound of Formula (III-a),



(III-a)

and

(4) contacting the compound of Formula (III-a) with a suitable base to form the  
compound of Formula (IV).

Claim 38 (previously presented): The process of Claim 37 for the preparation of a compound of Formula (IV), wherein:

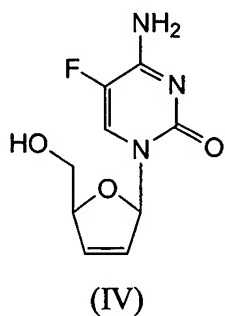
- in step (1), the suitable polar aprotic solvent comprises one polar aprotic solvent or a combination of two or more polar aprotic solvents; and is selected from the group consisting of: methylene chloride, tetrahydrofuran, t-butyl methyl ether, dimethoxy ethane, 2-methoxyethyl ether, dimethylformamide, dimethylacetamide, acetonitrile, ethyl acetate, and isopropyl acetate;
- in step (2), the reducing agent is selected from the group consisting of: Fe, Zn-Cu couple and Zn;
- in step (2), the suitable polar solvent comprises one polar solvent or a combination of two or more polar solvents; and is selected from the group consisting of: methanol, ethanol, propanol, ethyl acetate, propyl acetate, butyl acetate, isopropyl acetate, acetonitrile, tetrahydrofuran, dimethoxy ethane, and 2-methoxyethyl ether;
- in step (3a) the activating agent is selected from the group consisting of: methanesulfonyl chloride, trifluoromethyl sulfonyl chloride, ethanesulfonyl chloride, benzenesulfonyl chloride, p-toluene-sulfonyl chloride, triazole/phosphorus oxychloride and triazole/diphenyl chloro-phosphate;
- in step (3a) the amine base is selected from the group consisting of: triethylamine, tributylamine, N-methylmorpholine, N,N-diisopropyl-ethylamine, tetramethylethylenediamine, pyridine, N,N-dimethyl-aminopyridine, 1,4-diazabicyclo[2.2.2]octane, and 1,8-diazabicyclo[5.4.0]undec-7-ene;
- in step (3a) the leaving group LG is selected from the group consisting of methanesulfonyloxy, trifluoromethyl-sulfonyloxy, ethanesulfonyloxy, benzenesulfonyloxy, toluenesulfonyloxy, and triazolyl;
- in step (3b) the aminating agent is selected from the group:  $\text{NH}_3$ , ammonium hydroxide, and ammonium carbonate; and

in step (4) the suitable base is selected from the group consisting of: sodium hydroxide, lithium hydroxide, potassium carbonate, sodium carbonate, sodium methoxide, sodium ethoxide, C<sub>3</sub>-C<sub>6</sub> alkyl primary amine, ammonium hydroxide, and ammonium C<sub>1</sub>-C<sub>6</sub> alkoxide.

Claim 39 (previously presented): The process of Claim 38 for the preparation of a compound of Formula (IV), wherein:

in step (1), the suitable polar aprotic solvent comprises one solvent which is acetonitrile;  
in step (2), the reducing agent is Zn-Cu couple;  
in step (2), the suitable polar solvent comprises a combination of methanol and ethyl acetate;  
in step (3a) the activating agent is triazole/phosphorus oxychloride;  
in step (3a) the amine base is triethylamine;  
in step (3a) the leaving group LG is triazolyl;  
in step (3b), the aminating agent is NH<sub>3</sub>; and  
in step (4) the suitable base is sodium methoxide.

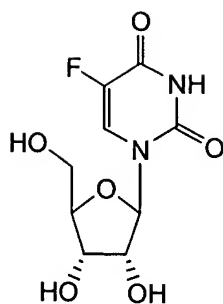
Claim 40 (previously presented): The process according to Claim 39, for the preparation of a compound of Formula (IV):



comprising:

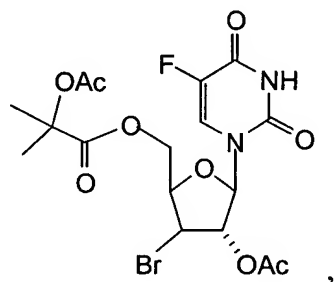
(1) contacting a compound of Formula (V):



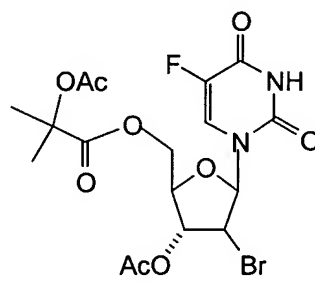


(V)

with 2-acetoxy-2-methyl-propionyl bromide in acetonitrile to form a mixture of compounds of Formula (VI-a) and (VI\*-a):

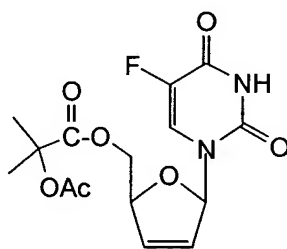


(VI-a)



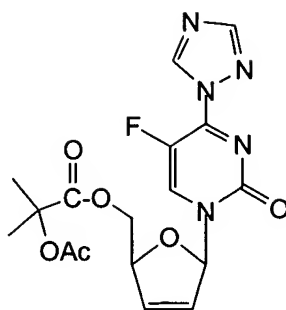
(VI\*-a)

(2) contacting the mixture of compounds of Formula (VI-a) and (VI\*-a); with Zn-Cu couple in a suitable polar solvent comprising a combination of methanol and ethyl acetate, wherein the ratio of methanol to ethyl acetate is in the range of 1:2 to 1:4 to form a compound of Formula (VII-a):



(VII-a);

(3a) contacting the compound of Formula (VII-a) with 1,2,4-triazole/phosphorus oxychloride, in the presence of triethylamine, to form a compound of Formula (VIII-a):

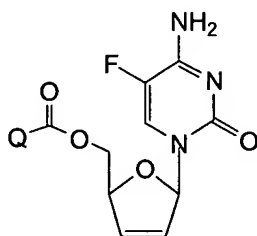


(VIII-a);

(3b) contacting the compound of Formula (VIII-a) with NH<sub>3</sub>, to form a compound of Formula (III-a), and

(4) contacting the compound of Formula (III-a) with sodium methoxide to form the compound of Formula (IV).

Claim 41 (Currently Amended): A process for the preparation of a compound of Formula (III):



(III)

wherein:

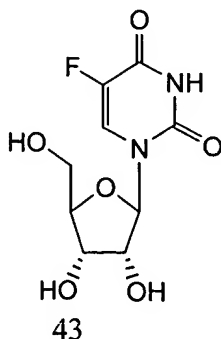
Q is 2-(R<sup>1</sup>CH<sub>2</sub>CO<sub>2</sub>)phenyl-, R<sup>1</sup>CH<sub>2</sub>-, or R<sup>1</sup>CH<sub>2</sub>C(=O)OC(R<sup>2</sup>)<sub>2</sub>-;

R<sup>1</sup> is H or C<sub>1</sub>-C<sub>6</sub> alkyl;

R<sup>2</sup>, at each occurrence, is independently selected from methyl, ethyl, and propyl;

comprising:

(1) contacting a compound of Formula (V):



(V)

with an acyl halide of Formula  $Q-C(=O)X$ , wherein:

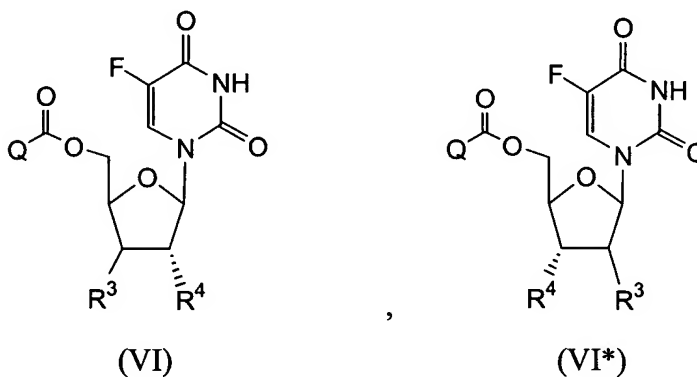
Q is 2-( $R^1CH_2CO_2$ )phenyl-,  $R^1CH_2$ -, or  $R^1CH_2C(=O)OC(R^2)_2$ ;

X is Cl, Br, or I;

$R^1$  is H or  $C_1$ - $C_6$  alkyl;

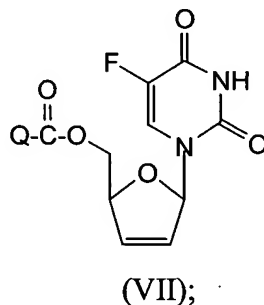
$R^2$ , at each occurrence, is independently selected from methyl, ethyl, and propyl;

in a suitable polar aprotic solvent at a temperature from about 0°C to 60°C to form a compound of Formula (VI), a compound of Formula (VI\*), or a mixture of compounds of Formula (VI) and (VI\*):

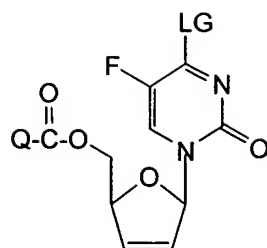


wherein  $R^3$  is X; and  $R^4$  is  $R^1CH_2C(=O)O$ -;

(2) contacting the compound of Formula (VI), the compound of Formula (VI\*), or the mixture of compounds of Formula (VI) and (VI\*); with a reducing agent in a suitable polar solvent, in the absence of an acid catalyst, to form a compound of Formula (VII):



(3a) contacting the compound of Formula (VII) with an activating agent in the presence of an amine base, to form a compound of Formula (VIII):



(VIII)

wherein LG is a leaving group derived from the activating agent;

(3b) contacting the compound of Formula (VIII) with an aminating agent to form a compound of Formula (III).

Claim 42 (previously presented): The process of Claim 41 for the preparation of a compound of Formula (III), wherein:

in step (1) the acyl halide of Formula  $Q-C(=O)X$  comprises:

2-acetoxy-2-methyl-propionyl bromide,  
2-(acetoxy)-2-methyl-butanoyl bromide,  
2-(acetoxy)-2-ethyl-butanoyl bromide, or  
2-(acetoxy)-2-methyl-pentanoyl bromide;

in step (1), the suitable polar aprotic solvent comprises one polar aprotic solvent or a combination of two or more polar aprotic solvents; and is selected from the group consisting of: methylene chloride, tetrahydrofuran, t-butyl methyl ether, dimethoxy ethane, 2-methoxyethyl ether, dimethylformamide, dimethylacetamide, acetonitrile, ethyl acetate, and isopropyl acetate;

in step (2), the reducing agent is selected from the group consisting of: Fe, Zn-Cu couple and Zn;

in step (2), the suitable polar solvent comprises one polar solvent or a combination of two or more polar solvents; and is selected from the group consisting of: methanol, ethanol, propanol, ethyl acetate, propyl acetate, butyl acetate, isopropyl acetate, acetonitrile, tetrahydrofuran, dimethoxy ethane, and 2-methoxyethyl ether;

in step (3a) the activating agent is selected from the group consisting of:  
methanesulfonyl chloride, trifluoromethyl sulfonyl chloride, ethanesulfonyl chloride, benzenesulfonyl chloride,

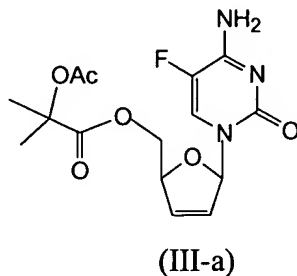
p-toluene-sulfonyl chloride, triazole/phosphorus oxychloride and  
triazole/diphenyl chloro-phosphate;

in step (3a) the amine base is selected from the group consisting of: triethylamine,  
tributylamine,  
N-methylmorpholine, N,N-diisopropyl-ethylamine,  
N,N-dimethylcyclohexylamine,  
N,N-diethylcyclohexylamine,  
N,N-dimethyloctylamine, tetramethylethylenediamine,  
pyridine, N,N-dimethyl-aminopyridine,  
1,4-diazabicyclo[2.2.2]octane,  
1,8-diazabicyclo[5.4.0]undec-7-ene, and  
1,5-diazabicyclo[4.3.0]non-5-ene;

in step (3a) the leaving group LG is selected from the group consisting of  
methanesulfonyloxy, trifluoromethyl-sulfonyloxy, ethanesulfonyloxy,  
benzenesulfonyloxy, toluenesulfonyloxy, and triazolyl;

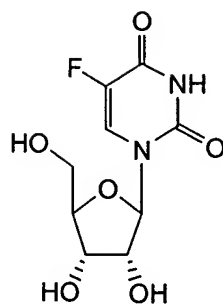
in step (3b) the aminating agent is selected from the group:  $\text{NH}_3$ , ammonium hydroxide,  
and ammonium carbonate.

Claim 43 (previously presented): The process according to Claim 41, for the preparation  
of a compound of Formula (III-a):



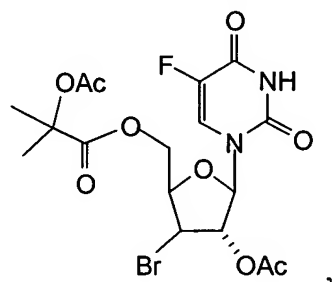
comprising:

(1) contacting a compound of Formula (V):

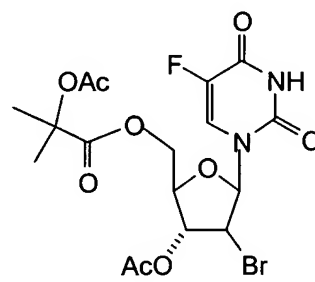


(V)

with 2-acetoxy-2-methyl-propionyl bromide in a suitable polar aprotic solvent to form a compound of Formula (VI-a), a compound of Formula (VI\*-a), or a mixture of compounds of Formula (VI-a) and (VI\*-a):

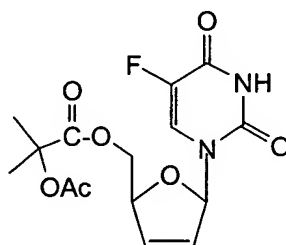


(VI-a)



(VI\*-a)

(2) contacting the compound of Formula (VI-a), the compound of Formula (VI\*-a), or the mixture of compounds of Formula (VI-a) and (VI\*-a); with a reducing agent in a suitable polar solvent, in the absence of an acid catalyst, to form a compound of Formula (VII-a);

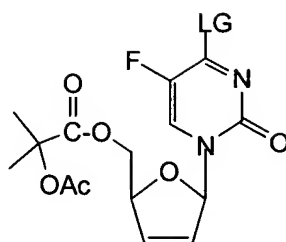


(VII-a);

(3a) contacting the compound of Formula (VII-a) with a activating agent selected from the group consisting of:

- i) an aryl sulfonyl halide,
- ii) an alkyl sulfonyl halide, and
- iii) 1,2,4-triazole in the presence of a phosphorus chloride;

in the presence of an amine base, to form a compound of Formula (VIII-a):



(VIII-a)

wherein LG is a leaving group derived from the activating agent; and

(3b) contacting the compound of Formula (VIII-a) with an aminating agent to form a compound of Formula (III-a).

Claim 44 (previously presented): The process of Claim 43 for the preparation of a compound of Formula (III-a), wherein:

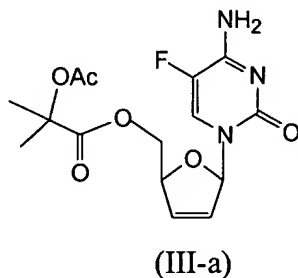
- in step (1), the suitable polar aprotic solvent comprises one polar aprotic solvent or a combination of two or more polar aprotic solvents; and is selected from the group consisting of: methylene chloride, tetrahydrofuran, t-butyl methyl ether, dimethoxy ethane, 2-methoxyethyl ether, dimethylformamide, dimethylacetamide, acetonitrile, ethyl acetate, and isopropyl acetate;
- in step (2), the reducing agent is selected from the group consisting of: Fe, Zn-Cu couple and Zn;
- in step (2), the suitable polar solvent comprises one polar solvent or a combination of two or more polar solvents; and is selected from the group consisting of: methanol, ethanol, propanol, ethyl acetate, propyl acetate, butyl acetate, isopropyl acetate, acetonitrile, tetrahydrofuran, dimethoxy ethane, and 2-methoxyethyl ether; and
- in step (3a) the activating agent is selected from the group consisting of: methanesulfonyl chloride, trifluoromethyl sulfonyl chloride, ethanesulfonyl chloride, benzenesulfonyl chloride, p-toluene-sulfonyl chloride, triazole/phosphorus oxychloride and triazole/diphenyl chloro-phosphate;
- in step (3a) the amine base is selected from the group consisting of: triethylamine, tributylamine, N-methylmorpholine, N,N-diisopropyl-ethylamine,

tetramethylethylenediamine, pyridine,  
N,N-dimethyl-aminopyridine,  
1,4-diazabicyclo[2.2.2]octane, and  
1,8-diazabicyclo[5.4.0]undec-7-ene;  
in step (3a) the leaving group LG is selected from the group consisting of  
methanesulfonyloxy, trifluoromethyl-sulfonyloxy, ethanesulfonyloxy,  
benzenesulfonyloxy, toluenesulfonyloxy, and triazolyl; and  
in step (3b) the aminating agent is selected from the group:  $\text{NH}_3$ , ammonium hydroxide,  
and ammonium carbonate.

Claim 45 (previously presented): The process of Claim 44 for the preparation of a  
compound of Formula (III-a), wherein:

in step (1), the suitable polar aprotic solvent comprises one solvent which is acetonitrile;  
in step (2), the reducing agent is Zn-Cu couple;  
in step (2), the suitable polar solvent comprises a combination of methanol and ethyl  
acetate;  
in step (3a) the activating agent is triazole/phosphorus oxychloride;  
in step (3a) the amine base is triethylamine;  
in step (3a) the leaving group LG is triazolyl; and  
in step (3b), the aminating agent is  $\text{NH}_3$ .

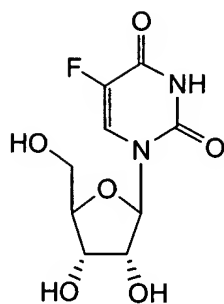
Claim 46 (previously presented): The process according to Claim 45, for the preparation  
of a compound of Formula (III-a):



comprising:

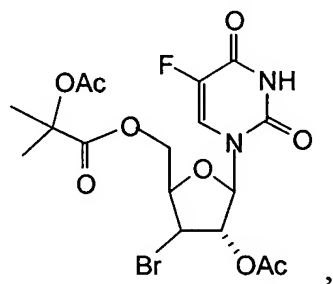
(1) contacting a compound of Formula (V):



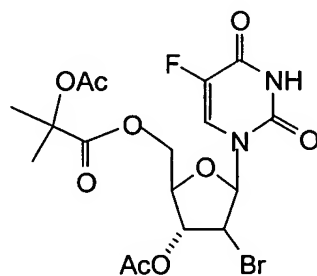


(V)

with 2-acetoxy-2-methyl-propionyl bromide in acetonitrile to form a compound of Formula (VI-a), a compound of Formula (VI\*-a), or a mixture of compounds of Formula (VI-a) and (VI\*-a):

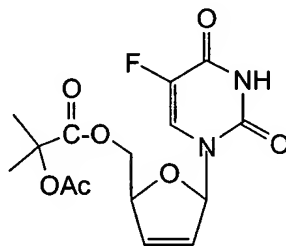


(VI-a)



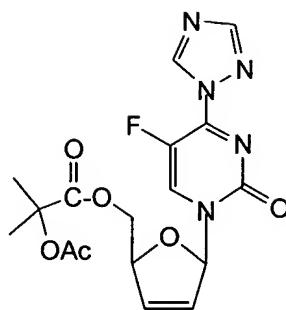
(VI\*-a)

(2) contacting the compound of Formula (VI-a), the compound of Formula (VI\*-a), or the mixture of compounds of Formula (VI-a) and (VI\*-a); with Zn-Cu couple in a suitable polar solvent comprising a combination of methanol and ethyl acetate, wherein the ratio of methanol to ethyl acetate is in the range of 1:2 to 1:4, to form a compound of Formula (VII-a):



(VII-a);

(3a) contacting the compound of Formula (VII-a) with 1,2,4-triazole/phosphorus oxychloride, in the presence of triethylamine, to form a compound of Formula (VIII-a):



(VIII-a);

and

(3b) contacting the compound of Formula (VIII-a) with  $\text{NH}_3$ , to form a compound of Formula (III-a).

Claim 47 - 59 (Canceled)

Claim 60 (previously presented): The process of claims 1 or 29 wherein the compound of Formula (IV) is in the form of a  $\beta$ -D-enantiomer.

Claim 61 (previously presented): The process of claims 19 or 41 wherein the compound of Formula (III) is in the form of a  $\beta$ -D-enantiomer.

Claim 62 (previously presented): The compound of claim 25 wherein the compound of Formula (II) or (II\*) is in the form of a  $\beta$ -D-enantiomer.

Claim 63 (previously presented): The compound of claim 26 wherein the compound of Formula (II-a) or (II\*-a) is in the form of a  $\beta$ -D-enantiomer.

Claim 64 (previously presented): The compound of claim 27 wherein the compound of Formula (III) is in the form of a  $\beta$ -D-enantiomer.

Claim 65 (previously presented): The compound of claim 28 wherein the compound of Formula (III-a) is in the form of a  $\beta$ -D-enantiomer.

Claim 66. (New) The process of claim 1 wherein the temperature in step (1) is about 10°C to about 40°C.

Claim 67. (New) The process of claim 1 wherein the temperature in step (1) is about 25°C to about 40°C.

Claim 68. (New) The process of claim 19 wherein the temperature in step (1) is about 10°C to about 40°C.

Claim 69. (New) The process of claim 19 wherein the temperature in step (1) is about 25°C to about 40°C.

Claim 70. (New) The process of claim 29 wherein the temperature in step (1) is about 10°C to about 40°C.

Claim 71. (New) The process of claim 29 wherein the temperature in step (1) is about 25°C to about 40°C.

Claim 72. (New) The process of claim 41 wherein the temperature in step (1) is about 10°C to about 40°C.

Claim 73. (New) The process of claim 41 wherein the temperature in step (1) is about 25°C to about 40°C.